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TRANSMITTAL OF APPEAL BRIEF (Large Entity)

Docket No: MICT-0108-00-US

In Re Application Of: **Stephen C. Murphy**

Serial No.	Filing Date	Examiner	Group Art Unit
09/069,728	4/29/98	F. Alphonse	2675

Invention: **A Method for Entering Data into a Computer Using a Peripheral Input Device Having a Retractable Cord**

TO THE ASSISTANT COMMISSIONER FOR PATENTS:

Transmitted herewith in triplicate is the Appeal Brief in this application, with respect to the Notice of Appeal filed on

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Dated: 6/06/01

Fred G. Pruner, Jr., Reg. No. 40,779

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IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Applicant: Stephen C. Murphy	§	Group Art No.: 2675
Serial No.: 09/069,728	§	Examiner: F. Alphonse
Filed: April 29, 1998	§	Docket No: MICT-0108-00-US
Title: A METHOD FOR ENTERING DATA INTO A COMPUTER USING A PERIPHERAL INPUT DEVICE HAVING A RETRACTABLE CORD	§	

Commissioner for Patents
Board of Patent Appeals & Interferences
Washington, D.C. 20231

APPEAL BRIEF

Dear Sir:

Applicant hereby appeals from the Final Rejection dated January 2, 2001.

I. REAL PARTY IN INTEREST

The real party in interest is Micron Technology, Inc. by virtue of an assignment from Micron Electronics, Inc. The assignment to Micron Technology, Inc. has been recorded, but the Notice of Recordation has not yet been received.

II. RELATED APPEALS AND INTERFERENCES

There are no related appeals or interferences.

III. STATUS OF THE CLAIMS

A request was made to cancel claims 1-11, and 22-25 in the Reply filed on March 2, 2001. The Examiner did not indicate in the Advisory Action, mailed on March 26, 2001,

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whether these claims had been canceled. However, the Assignee assumes that because entry of these cancellations would simplify issues on appeal, the cancellations will be or have been entered. Thus, the remaining claims 12-21 and 26-35 have been finally rejected and are the subject of this appeal.

IV. STATUS OF AMENDMENTS

As noted above, the Examiner has not indicated whether claims 1-11 and 12-25 have been canceled. All other amendments have been entered.

V. SUMMARY OF THE INVENTION

Figures 1A-B illustrate a first embodiment of a peripheral input device 10 constructed and operated in accordance with the present invention. The device 10 includes a body 12, an electrical cord 14 operably connected to the body 12, an anchor 16 for the electrical cord 14, and a spool 18 biased to rotate and retract the electrical cord 14 as discussed more fully below relative to Figures 6-7. In the particular embodiment illustrated, the spool 18 is rotatably mounted in the housing 19 of the anchor 16. Note, however, that the spool 18 need not necessarily be mounted in the anchor 16 to practice the invention as illustrated by the embodiment of Figures 3-4 discussed below. Further, in some embodiments not shown, the housing 19 might be sufficiently large to house the body 12 when not in use and the electrical cord 14 is fully retracted. Specification, p. 5.

The anchor 16 in the embodiment of Figures 1A-1B is affixed to the desktop 20. The manner in which the anchor 16 is affixed is not material to the invention provided the anchor 16 is sufficiently affixed so that the user may draw the cord 14 from the spool 18 while normally operating the input device 10. Thus, the anchor 16 may be affixed by an adhesive or a fastener. In one particular embodiment, the anchor 16 is affixed using a flexible hook-and-loop fastener

(not shown) such as that sold under the mark Velcro®. One strip of the fastener may be adhered to the bottom of the anchor 16 and the other to the desktop 20. Specification, p. 6.

The housing 19 in the embodiment of Figures 1A-1B is affixed to the desktop 20 in a manner permitting the housing 19 to rotate in a horizontal plane as shown in Figure 1B. More particularly, the housing 19 is rotatably mounted to a base 21 that is affixed to the desktop 20. However, this is not necessary to the practice of the invention. The housing 19 may, in some alternative embodiments, be rigidly affixed to the desktop 20 in a manner prohibiting such lateral rotation. Specification, p. 6.

Figure 2A illustrates one variation of the embodiment of Figures 1A-1B in which the anchor 16 is affixed to the chassis of the computer 22. This particular embodiment also provides rotation in a horizontal plane about the axis 24 as the housing 19 of the anchor 16 is rotatably mounted to the bracket 26 by which the anchor 16 is affixed to the computer 22. Thus, this embodiment provides some flexibility in positioning the anchor 16 while still anchoring the electrical cord 14. Specification, p. 6.

Figure 2B illustrates a second variation on the embodiment of Figures 1A-1B in which the anchor 16 is affixed to the mouse pad 30. In some embodiments, this variation may include a housing 19 rotatable in a horizontal plane in a manner similar to the embodiment of Figure 1B. The anchor 16 may also be affixed to the desktop 20 through the mouse pad 30 such that the anchor is affixed to both the desktop 20 and the mouse pad 30 in some embodiments. Note that the desired manner of affixation may vary depending on whether the anchor 16 is affixed to the mouse pad 30 as shown in Figure 2B, to the chassis of the computer 22 as shown in Figure 2A, or the desktop 20 as shown in Figures 1A-1B. Specification, p. 7.

Returning to Figures 1A-1B, the peripheral input device 10 furthermore includes an input mechanism 28 on the body 12. The device 10 in this particular embodiment is a mouse, and so the input mechanism includes two buttons on the top of the body 12 and a trackball (not shown). The construction and operation of the body 12 and the input mechanism 28 in this particular embodiment is the same as for a conventional mouse. Thus, the construction and operation of the body 12 and input mechanism 28 will be well known to those in the art having the benefit of this disclosure. Note, also, that some embodiments in which the input device 10 is a mouse a mouse pad 30 might be employed. Specification, p. 7.

Figures 3-4 illustrate a second embodiment 50a constructed and operated in accordance with the present invention. In this particular embodiment, the spool 18 is mounted within the body 12a of the device 50a rather than in the anchor 16a. The device 50a is otherwise analogous to the device 10 of Figures 1A-2, with like parts bearing like numbers. Again, the particular embodiment 50a illustrated in Figures 3-4 is a mouse. The body 12a must be modified relative to that of a conventional mouse to rotatably mount the spool 18 therein as discussed more fully below. Specification, pp. 7-8.

The body 12a is otherwise constructed in accordance with a conventional mouse design. Thus, the mouse 12a includes, as an input mechanism 28, the buttons and the trackball 29. The buttons are biased in the upward direction and are depressed by the user to input data. The trackball 29 is rotatably mounted in the body 12a and extends through an aperture in the bottom of the body 12a. The body 12a also houses electro-mechanical circuitry to convert the trackball's movement into electronic data in a manner well known to the art. The operation of this input mechanism in this particular embodiment is well known and appears in such elementary texts as David Macaulay, *The Way Things Work*, pp. 346-47 (Houghton Mifflin Co. 1988) (ISBN 0-395-

42857-2) and Ron White, *How a Computer Works*, pp. 106-09 (Ziff-Davis Press 2d Ed.) (ISBN 1-56276-344-X). Specification, p. 8.

Figure 5 illustrates a third embodiment 50b constructed and operated in accordance with the present invention. In this particular embodiment, the spool 18 is mounted within housing 19 rather than in the anchor 16a or the body 12. The anchor 16a is affixed to the desktop 20, but the housing 19a "floats" in that it is not affixed to desktop 20 or mouse pad 30. The device 50b is otherwise analogous to the device 10 of Figures 1A-2B and the device 50a of Figures 3-4, with like parts bearing like numbers. Again, the particular embodiment 50b illustrated in Figure 5 is a mouse, but the invention is not so limited. Note also that the electrical cord 14 could be anchored at the back of the computer 22, thereby eliminating the need for anchor 16a. Specification, pp. 8-9.

Figures 6-8 and Figure 9 illustrate spooling mechanisms as may be used to retract the electrical cord 14 as set forth above. More particularly, Figures 6-7 depict, in an exploded and an assembled view, respectively, one embodiment 18 of a spool such as may be employed in accordance with the present invention. Figure 8 depicts how the spool 18 of Figures 6-7 may be employed in the embodiment of Figures 3-4. Figure 9 depicts a spool alternative 18a to that in Figures 6-8. Specification, p. 9.

Turning now to Figures 6-7, a first embodiment of the spool 18 is shown. The spool 18 includes a drum 52 rotatably mounted on a shaft 53 affixed to a stand 54 on one end, as shown in Figure 6, and the side of a structure 63, as shown in Figure 7. If the spool 18 is employed in the embodiment of Figures 1A-1B, the structure 63 is the housing 19. If the spool 18 is employed in the embodiment of Figures 3-4, then the structure 63 is the body 12a. Specification, pp. 9-10.

Each end of the shaft 53 may be affixed by a fastener 60 through an aperture 58 in the stand 54 and in the structure 63 such that the shaft 53 does not rotate. However, both ends of the shaft 53 are supported by a respective stand 54 and, in some embodiments, both ends of the shaft 53 may be affixed to a stand 54. The stands 54 are affixed to the base 62 of the structure 63, which is the housing 19 in the embodiment of Figures 1A-1B or the body 12a for the embodiment of Figures 3-4. Specification, p. 10.

Referring now to Figure 6, one end 64 of the shaft 53 extends also through a clock spring 66 and a cover 68 before being secured to the stand 54 by the fastener 60. A tab 70 at one end of the clock spring 66 inserts into a slot 72 in the drum 52 and a tab 74 at the other end of the clock spring 66 insert into a slot 76 in the shaft 53. The cover 68 encloses the clock spring 66 is mounted to the drum 52 by inserting a plurality of tabs 78 extending from the cover 68 into slots 80 in the drum 52. Specification, p. 10.

The clock spring 66 biases the spool 18 to retract the electrical cord 14 and operates between the drum 52 and the shaft 53. As the mouse 12 is drawn with sufficient force, the electrical cord 14 spools off the drum 52 and tensions the clock spring 66. When the mouse 12 is released or when insufficient force is exerted through the mouse 12, the tension in the clock spring 66 is released and rotates the drum 52 on the stationary shaft 53 to retract the electrical cord 14. Thus, the workspace is freed of any undesirable slack in the electrical cord 14. Note that some embodiments not shown might employ a ratchet to control the retraction of the electrical cord 14. Specification, pp. 10-11.

Referring now to Figure 7, a second end 81 of the stationary shaft 53 extends through an aperture 82 in a contact plate 84 before it is affixed to the structure 63. The contact plate 84 includes contact elements 86 that are electrically coupled to the contact rings 88 on the

corresponding end of the drum 52 when the spool 18 is assembled. When the spool 18 is employed in the embodiments of Figures 1A-1B, the contact elements 86 are also electrically coupled to the male connector 90 that mates with the female connector 92. When the spool 18 is employed in the embodiment of Figures 3-4, the contact elements 86 are electrically coupled to the leads 94 which may be directly routed to the electrical circuitry. Specification, p. 11.

The use of the contact elements 86 and the contact rings 88 thereby maintains the electrical continuity of the signal path between the mouse 12, or 12a, and the computer 22 while enabling the drum 52 to rotate freely about the stationary shaft 53. Figures 1A-1B illustrate how the spool 18 might be mounted in that particular embodiment using the coupling between the male connector 90 and the female connector 92. Figure 8 illustrates how the spool 18 might be housed in the mouse 12a of Figures 3-4 such that the lead 94 are routed to the electro-mechanical elements 96. Specification, p. 11.

Finally, Figure 9 illustrates an alternative spool 18a in which the drum rotates in a horizontal plane rather than the vertical plane of Figures 6-8. This particular embodiment is otherwise similar to that of Figures 6-8. Still other techniques might be used to retract and spool the electrical cord 14. Specification, p. 12.

A peripheral input device having a retractable cord, such as the device 10 of Figures 1A-1B or the device 50 of Figures 3-4, may be used to enter data into a computer. Referring now to Figures 1A-1B for illustrative purposes, the device 10 may be so used by first anchoring the electrical cord 14 connecting the body 12 of the peripheral input device 10 to the computer 22. The body 12 of the peripheral input device 10 may then be positioned by the user. As the body 12 of the peripheral input device 10 is positioned, the slack in the electrical cord 14 is retracted. Specification, p. 12.

Anchoring the electrical cord includes anchoring the electrical cord to a work surface such as the desktop 20, the mouse pad 30, or both the desk top 20 and the mouse pad 30. The electrical cord 14 may alternatively be anchored to the chassis of the computer 22 as in the embodiment of Figure 2A or in some other suitable manner. The anchor 16 by which the electrical cord 14 is anchored in the particular embodiment of Figures 1A-1B may be affixed in any suitable manner as discussed above, including, but not limited to, adherence, fastening, or both. Specification, p. 12.

In the particular embodiment of Figures 1A-1B, the peripheral input device 10 is a mouse. Consequently, positioning the peripheral input device 10 includes positioning a mouse and, typically, positioning a cursor 98 displayed on the monitor 97 of the computer 22. However, the invention is not so limited as the invention may be used with other types of peripheral input devices. An exemplary alternative type of peripheral input device is a keyboard, although other types may be suitable. Specification, p. 13.

Retracting slack in the electrical cord 14 is also highly implementation dependent. The slack may be retracted into the peripheral input device as the case of the embodiment in Figures 1A-1B. The slack may alternatively be retracted into an anchor as with the embodiment of Figures 3-4 or into a floating structure as in the embodiment of Figure 5. Still other suitable alternatives might be employed. Specification, p. 13.

VI. ISSUES

A. Can a reference that does not teach or suggest affixing an electrical cord to a work surface anticipate claims 12, 15 and 16 and render claims 13 and 14 obvious?

B. Can a reference that does not teach or suggest anchoring an electrical cord to a work surface anticipate claims 17, 20 and 21 and render claims 18 and 19 obvious?

C. Can a reference that does not teach or suggest retracting slack in an electrical cord and maintaining a fixed length of the electrical cord between a peripheral input device and a computer anticipate claims 26, 27, 34 and 35 and render claims 27-33 obvious?

VII. GROUPING OF THE CLAIMS

Claims 12-16 can be grouped together; claims 17-21 can be grouped together; and claims 26-35 can be grouped together.

VIII. ARGUMENT

All claims should be allowed over the cited references for the reasons set forth below.

A. Can a reference that does not teach or suggest affixing an electrical cord to a work surface anticipate claims 12, 15 and 16 and render claims 13 and 14 obvious?

The method of claim 12 includes affixing an electrical cord to a work surface. The electrical cord connects a peripheral device to a computer. Between the peripheral input device and the computer, the electrical cord is wound up to retract slack in the electrical cord as the peripheral input device is moved.

The Examiner relies on a single reference in rejecting claim 12 under 35 U.S.C § 102(a): U.S. Patent No. 5,669,571 (herein referred to as "Graybill"). Graybill teaches an electrical cord storage and dispersing organizer 5. The organizer 5 includes a cordwheel 65 to store electrical cord that is wrapped around the cordwheel 65. Graybill, col. 3, ll. 64-67. Fig. 3 of Graybill depicts the placement of the organizer 5 on a work area table 202 along with a personal computer system. Graybill, col. 3, ll. 36-51. Graybill discusses connecting multiple organizers 5 together via connection pins 60 that connect adjacent organizers 5.

However, Graybill neither teaches nor suggests affixing an electrical cord to a work surface.

Thus, the rejections of claims 12-16 should be reversed.

B. Can a reference that does not teach or suggest anchoring an electrical cord to a work surface anticipate claims 17, 20 and 21 and render claims 18 and 19 obvious?

The method of claim 17 includes anchoring an electrical cord to a work surface.

The Examiner relies on Graybill to reject claim 17 under 35 U.S.C. § 102(a). However, as discussed above in connection with Issue A, Graybill teaches placing an electrical cord in an NO organizer that rests on a work area table but neither teaches nor suggests anchoring an electrical cord to a work surface.

Thus, the rejections of claims 17-21 should be reversed.

C. Can a reference that does not teach or suggest retracting slack in an electrical cord and maintaining a fixed length of the electrical cord between a peripheral input device and a computer anticipate claims 26, 27, 34 and 35 and renders claims 27-33 obvious?

The method of claim 26 includes positioning a peripheral input device attached to a computer via an electrical cord and retracting slack in the electrical cord as the peripheral input device is positioned. A fixed length of the electrical cord is maintained between the peripheral input device and the computer.

The Examiner relies on Graybill to reject claim 26 under 35 U.S.C. § 102(a). However, Graybill teaches folding a cable in half such that there are two equal lengths of the cable and then engaging the resultant mid-point of the cable with a cord loop 80 of the cordwheel 65. Graybill, col. 4, ll. 3-8. In this manner, Graybill teaches winding up the folded cord on the cordwheel 65 so that excess slack in the folded cord may be taken out by releasing tension on the folded cord to permit the cord wheel 65 to retract the folded cord. Graybill, col. 4, ll. 12-19. Due to this

arrangement, a fixed length of electrical cord is not maintained between the organizer and a computer. Therefore, Graybill neither teaches nor suggests the maintaining act of claim 26.

Therefore, the rejections of claims 26-35 should be reversed.

IX. CONCLUSION

The Assignee requests that each of the final rejections be reversed and that the claims subject to this Appeal be allowed to issue.

Respectfully submitted,

Date: 9/06/01

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APPENDIX OF CLAIMS

The claims on appeal are:

12. A method for entering data into a computer, comprising:

affixing an electrical cord to a work surface, the electrical cord connecting a peripheral input device to the computer;

moving the peripheral input device; and

between the peripheral input device and the computer, winding up the electrical cord to retract slack in the electrical cord as the peripheral input device is moved.

13. The method of claim 12, wherein anchoring the electrical cord to the work surface includes anchoring the electrical cord to a desktop or a mouse pad.

14. The method of claim 12, wherein anchoring the electrical cord to the work surface includes at least one of adhering and fastening an anchor to the work surface.

15. The method of claim 12, wherein moving the peripheral input device includes moving a mouse and a pointer displayed by the computer.

16. The method of claim 12, wherein retracting slack in the electrical cord includes retracting the slack into an anchor.

17. A method for entering data into a computer, comprising:

anchoring an electrical cord to a work surface, the electrical cord connecting a mouse to the computer;

positioning the mouse; and

between the mouse and the computer, winding up the electrical cord to retract slack in the electrical cord as the mouse is positioned.

18. The method of claim 17, wherein anchoring the electrical cord to the work surface includes anchoring the electrical cord to at least one of a desktop and a mouse pad.

19. The method of claim 17, wherein anchoring the electrical cord includes at least one of adhering and fastening an anchor to the work surface.

20. The method of claim 17, wherein positioning the mouse includes positioning a pointer displayed by the computer.

21. The method of claim 17, wherein retracting slack in the electrical cord includes retracting the slack into at least one of the mouse and an anchor.

26. A method for entering data into a computer, comprising:

positioning a peripheral input device attached to the computer via an electrical cord;

retracting slack in the electrical cord as the peripheral input device is positioned; and

maintaining a fixed length of the electrical cord between the peripheral input device and the computer.

27. The method of claim 26, further comprising anchoring the cord.

28. The method of claim 27, wherein anchoring the electrical cord includes anchoring the electrical cord to a desktop.

29. The method of claim 27, wherein anchoring the electrical cord includes at least one of adhering and fastening an anchor to the desktop.

30. The method of claim 27, wherein anchoring the electrical cord includes anchoring the electrical cord to a computer chassis.

31. The method of claim 30, wherein anchoring the electrical cord includes at least one of adhering and fastening an anchor to the computer chassis.

32. The method of claim 27, wherein anchoring the electrical cord includes at least one of adhering and fastening an anchor to the mouse pad.

33. The method of claim 32, wherein anchoring the electrical cord includes at least one of adhering and fastening an anchor to the mouse pad.

34. The method of claim 26, wherein positioning the peripheral input device includes positioning a mouse.

35. The method of claim 26, wherein positioning the peripheral input device includes positioning a pointer displayed by the computer.